

## **REMARKS**

Claims 1-13 are pending in the application.

At the onset, Applicant would like to express appreciation for the Examiner's determination that Claims 5 and 7-13 have allowable subject matter and would be allowed if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In the outstanding Office Action, the Examiner objected to the disclosure because of several informalities. The informalities have been obviated by the attached amendments.

Further, the Examiner rejected the claims under the judicially created doctrine of obviousness-type double patenting. Specifically, Claim 1 is provisionally rejected as being unpatentable over the claims of copending application No. 09/653,023 in view of Aguiar, et al. (hereinafter "Aguiar") and in further view of Irani, Multi-Frame Optical Flow Estimation Using Subspace Constraints. The Examiner asserts that Claim 1 of the copending application differs from the instant claims by using rank factorization instead of rank-1 factorization. The Examiner contends that using rank-3 factorization rather than rank-1 factor matrices is known in the art and therefore it would be obvious to one of ordinary skill in the art to use either one of the types of factorization. Further, the Examiner also contends that a second difference, dividing windows into smoothing windows, is also known in the art as evidenced by Irani.

The independent claims of both applications have been amended to clarify the differences between the copending applications. Specifically, claim 1 the copending

application has been amended to recite what the image data is, i.e., being one or more characteristic selected from a group consisting of points, lines and intensities.

In the most recent Office Action, the Examiner rejected Claims 1-6 and 8 under 35 U.S.C. §103(a) as being unpatentable over Oliensis, et al. (hereinafter “Oliensis”) and Aguiar.

Oliensis is not prior art. Applicant respectfully notes that the instant application relates to and incorporates by reference copending U.S. Application Serial No. 09/653,023. This copending application claims the benefit of a provisional application filed on June 7, 2000. Accordingly, the instant application is also entitled to claim the provisional application’s filing date as its priority date. Oliensis, Structure from Motion using Points, Lines, and Intensities, is an article that was presented at a conference June 13-15, 2003 therefore the priority date of the instant application is prior to the article’s publication date.

Furthermore, the Examiner objected to Claims 5 and 8 because of several informalities in these claims. These objections have been obviated by the above amendments.

Lastly, Applicant submits new Claims 14-15 for Examination. These new claims cover a computer system and software for implementing the claimed method. No new matter has been added.

Accordingly, in light of the foregoing amendments and arguments,  
applicant respectfully submits that all of the claims in the instant application are in  
patentable form and define patentable subject matter and accordingly applicant requests  
notice of allowance in this matter.

Respectfully submitted,



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